



**DON BOSCO INSTITUTE OF TECHNOLOGY**  
**DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION**  
**IEEE-DBIT STUDENT BRANCH**

**Report on Home Automation Workshop**

**Topic:** “Home Automation using ESP8266”

**Date:** 15<sup>th</sup> February, 2020

**Time:** 10:00 am – 5:00p.m.

**Venue:** EXTC LAB 4

**Speaker:** Mr. Abhiram Pillai, TECH. SECRETARY, IEEE -DBIT

**Target Audience:** SE EXTC/COMPS/IT

**No of participants:** 19

**Description:**

The IEEE-DBIT student branch organized a workshop on Home Automation on the 15<sup>th</sup> of February. The majority of participants present in the workshop were second year students wherein the aim of the workshop was to provide the students with an introductory knowledge of Home Automation, which the students could inculcate in their mini-projects.

- The session commenced with an introductory speech by Mr. Shreyas Kulkarni, the chairperson of IEEE–DBIT. His speech included the basic introduction of Home Automation which was followed by the flow of the program and topics to be covered in the workshop.
- Mr. Abhiram Pillai took over and started the session by instructing the participants on how to use Arduino and its libraries in the application. The participants were

then introduced to ESP 8266 board and its configurations which would be later used in the workshop.

- With the introduction to ESP 8266, the students were introduced to DHT11 sensor which is used to detect changes in humidity and temperature. Mr. Abhiram Pillai showed the students how to interface the DHT11 sensor to ESP 8266 using the Arduino IDE.
- Once students learned about DHT11 Sensor, they were later introduced to intranet using BLYNK App which was used to control the microcontroller by adding various buttons and configuring them according to the ESP8266 board.
- A 2-channel relay module was given to students which is designed for switching two high powered devices from the Arduino. The relay module was used to switch on a lamp. Using jumpers, the relay module and ESP 8266 board were connected and the corresponding code was uploaded on the board after which the students were able to switch on the lamp.
- Later, students were taught how to create a simple web server using Arduino which was used to display data collected from the sensors and also control the output pins of the controller from a webpage.
- In the end MQTT protocol was introduced which is a simple messaging protocol, designed for constrained devices with low-bandwidth. MQTT allows the client to send commands to a controller, read and publish data from sensor nodes, etc. It is used to establish a communication between multiple devices.
- The day ended with an interactive doubt solving session and the feedbacks were taken from the participants.

Feedback:

**Arka Dey (SE EXTC):**



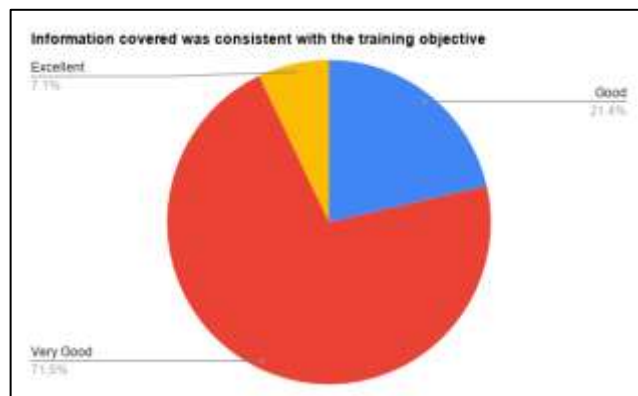
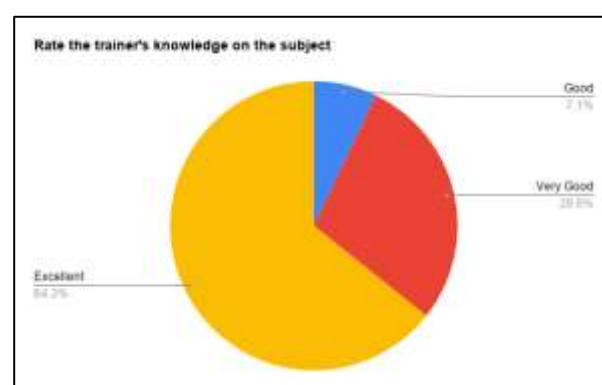
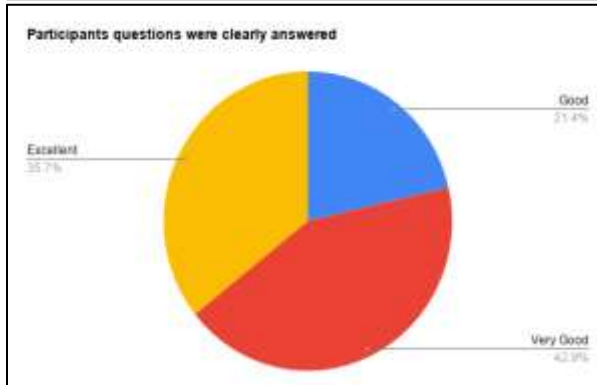
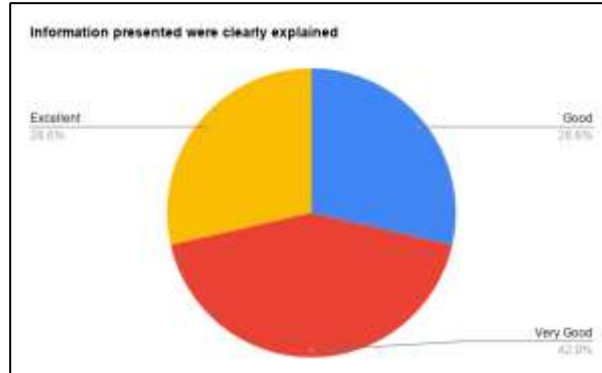
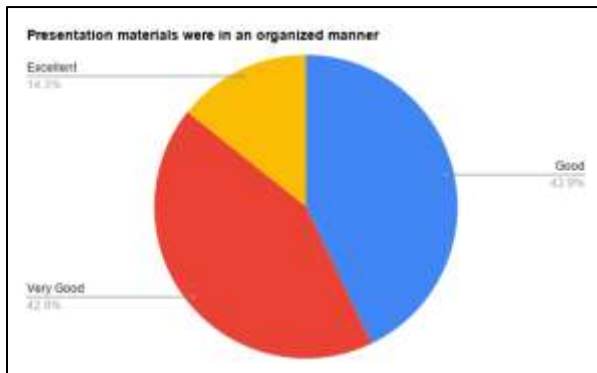
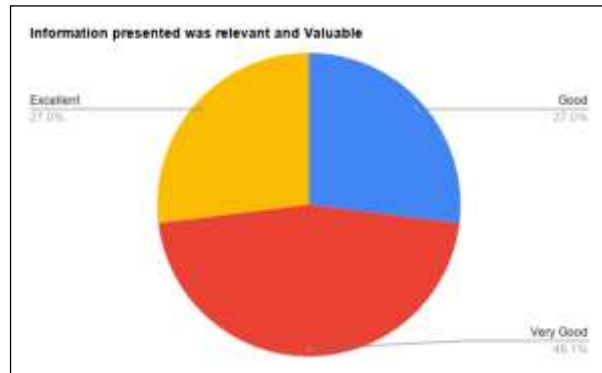
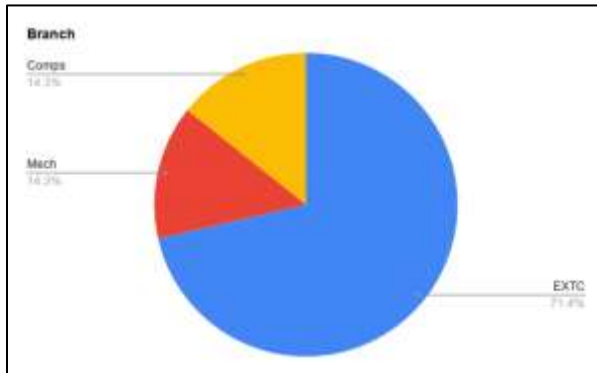
The workshop was good but it felt rushed. The concepts could be better explained. The participants questions were cleared. Overall the workshop could be improved.

**Ritik Kumar (SE EXTC):**



The information covered was adequate. Everyone was friendly and workshop was fun. The volunteers were extremely helpful, cooperative and gave good guidance.

## FEEDBACK ANALYSIS:



**FEEDBACK SUMMARY:**

From the above analysis we can see the overall reception to the workshop was positive. The higher majority of students are from EXTC followed Comps and Mechanical respectively. Many felt the overall webinar was satisfactory and informative and felt the trainer had a great knowledge on the topic.

**Report Prepared by:** Ms. James Robin K- IEEE-DBIT-REPORTING HEAD

**Report Approved by:** Ms. Gejo George-IEEE-DBIT SB Counselor

**Pictures of the event:**



